(2582) Proposal to conserve the name Mandevilla against Exothostemon (Apocynaceae: Mesechiteae)

Endress, Mary E

DOI: https://doi.org/10.12705/671.20

(2582) Proposal to conserve the name *Mandevilla* against *Exothostemon* (*Apocynaceae*: *Mesechiteae*)

Mary E. Endress

Department of Systematic and Evolutionary Botany, University of Zurich, Zollikerstrasse 107, 8008 Zurich, Switzerland; mendress@systbot.uzh.ch

DOI https://doi.org/10.12705/671.20

(2582) ***Mandevilla*** Lindl. in Edwards's Bot. Reg. 26: t. 7. Feb 1840 [*Apocyn*.], nom. cons. prop.
Typus: *M. suaveolens* Lindl.

(≡) *Exothostemon* G. Don, Gen. Hist. 4: 82. 1837, nom. rej. prop.
Typus (vide Pfeiffer, Nomencl. Bot. 1: 1328. 1874): *E. bracteatus* (Kunth) G. Don (*Echites bracteatus* Kunth).

Exothostemon was published by G. Don (Gen. Hist. 4: 82. 1837) as a new genus of *Apocynaceae* based on seven species treated as a distinctive group of the catch-all genus *Echites* by Kunth (in Humboldt & al., Nov. Gen. Sp. 3, ed. qu.: 217–221. 1819). These comprised a core group of six specimens collected by Humboldt and Bonpland in Amazonas, Venezuela and Tolima, Colombia between 1799 and 1801, each of which Kunth described as a new species, noting that they differed from the other *Echites* species by their infundibuliform corolla and stamens surpassing the tubular part of the corolla and that they might represent a distinct genus. In addition to these six species, Kunth (and Don) also included *E. paludosus* described by Vahl from Cuba and Colombia, which today belongs to *Rhabdadenia*, in the far-removed tribe *Rhabdadenieae*. Don did not designate a type for his new generic name. This was done by Pfeiffer (Nomencl. Bot. 1: 1328. 1874), who designated *Exothostemon bracteatus* (Kunth) G. Don as the type.

Exothostemon was included as a synonym of *Prestonia* by Bentham & Hooker (Gen. Pl. 2: 726. 1876). Miers (Apocyn. S. Amer.: 241. 1878) maintained *Exothostemon* and transferred to it two additional species, both from Mexico, originally described by Martens and Galeotti in the genera *Haemadictyon* and *Prestonia*, respectively. Of these last two species, one is today included in *Laubertia* and the other in *Prestonia*, both in tribe *Echiteae*, and thus not related to the six core Humboldt and Bonpland specimens that belong to tribe *Mesechiteae*. Schumann (in Engler & Prantl, Nat. Pflanzenfam. 4(2): 188. 1895) followed Bentham & Hooker (l.c.) and included *Exothostemon* in the synonymy of *Prestonia*, but at the same time transferred two of the original Kunth species of *Echites*, *E. javitensis* and *E. mollissimus*, to *Mandevilla* (Schumann, l.c.: 171). A total of nine species have thus been associated with the genus name *Exothostemon*, six of which (*Exothostemon bracteatus*, *E. mollissimus*, *E. macrophyllus*, *E. gracilis*, *E. speciosus*, and *E. javitensis*, all attributable to "(Kunth) G. Don") form a cohesive unit that today falls within the genus *Mandevilla*, and the remaining three of which belong to three different and distant genera.

Between 1933 and 1936 Robert E. Woodson, Jr. revised all New World apocynoid genera, thereby saddling himself with the unenviable task of sorting a great many lianoid species, the great majority of which were originally described in *Echites*. In his treatment of *Mandevilla* Woodson (in Ann. Missouri Bot. Gard. 20: 645–777. 1933) listed *Exothostemon* as a synonym and included all species with the distinctive suite of features found in the core group of six *Exothostemon* species collected by Humboldt & Bonpland as *Mandevilla* subg. *Exothostemon* (Woodson, l.c.: 647, 737), with the distinguishing features: gibbous or arcuate corolla tube, sepals with one, antesepalous calycine colleter and upper surface of the leaf blades with few to several colleters scattered along the midrib. At the bottom of page 645 Woodson noted: "A motion to retain the name *Mandevilla* Lindl. when that genus shall be considered congeneric with *Exothostemon* G. Don. has been indorsed by Dr. Fr. Markgraf, Berlin-Dahlem, and the writer and forwarded to the International Committee on Genera Conservanda in care of Dr. T.A. Sprague, Kew. This motion reviewed in detail (1) the popularity of *Mandevilla* and the disuse of *Exothostemon*; (2) the confusion relative to the use of the latter genus; (3) and particularly the large number of nomenclatorial changes which would be involved in the resurrection of the older name." Woodson and Markgraf seemed to consider the matter resolved, as both continued to describe new species in *Mandevilla* for the next thirty and fifty years, respectively, with no further mention of the genus *Exothostemon*. Marcel Pichon, the third major researcher in *Apocynaceae* s.str. in the last century, listed *Mandevilla* as a nom.

cons., with *Exothostemon* in the synonymy as a nom. rej. (Pichon in Mem. Mus. Natl. Hist. Nat., B, Bot. 1: 110. 1950). Yet *Mandevilla* is not found in the list of conserved genus names before 1950 (Camp & al. in Brittonia 6: 47–93. 1947) or in any previous Codes, and is thus threatened by *Exothostemon*.

Mandevilla is widespread in the Neotropics, ranging from southwestern U.S. through Mexico and the Antilles and Central and South America as far as northern Argentina, and grows in a variety of habitats including desert and cerrado formations, lowland rain forest, mountains, and some species at forest edges or along roadsides (Morales in Darwiniana 47: 158–162. 2009). Due to its wide distribution, the genus is included in many neotropical floras (e.g., Zarucchi & al. in Berry & al., Fl. Venezuelan Guayana 2: 518–529. 1995; Morales in Davidse & al., Fl. Mesoamer. 4: 681–683. 2009; Watanabe & al. in Iheringia, Bot. 64: 63–75. 2010) and in pollination biological studies (Löhne & al. in Bot. Jahrb. Syst. 125: 229–243. 2004; Moré & al. in Ann. Missouri Bot. Gard. 94: 485–504. 2007; Araújo & al. in Pl. Biol. (Stuttgart) 16: 947–955. 2014). Furthermore, due to its often showy flowers, over the past several years a number of cultivars have become widely available for home gardens.

Mandevilla, as currently circumscribed, not only has one of the broadest geographic ranges of the neotropical apocynoids, but is the largest genus worldwide of the traditional *Apocynaceae* (today recognized informally as rauvolfioids and apocynoids (Morales & al. in Taxon 66: 623–644. 2017) and one of the fastest growing in terms of species number. From Woodson's (l.c.) 108 recognized species in 1933, it has grown to 170 species in the most recent estimate (Morales in Darwiniana, l.c.). This is due in part to nomenclatural consequences of molecular phylogenetic studies (Simões & al. in Ann. Missouri Bot. Gard, 93: 565–591. 2006), which showed that three genera (*Macrosiphonia* Müll. Arg., *Quiotania* Zarucchi, *Telosiphonia* Henrickson) were nested within *Mandevilla*, resulting in 13 new combinations (Simões & al. in Novon 17: 87–90. 2007). But also the genus has grown due to the discovery of new species, from México (Alvarado-Cárdenas & Morales in Bot. Sci. 92: 59–79. 2014) to South America, particularly in Venezuela, Colombia, Ecuador and Peru (e.g., Morales in Candollea 60: 51–58. 2005 & in J. Bot. Res. Inst. Texas 1: 859–869. 2007) as well as in Brazil (Sales & al. in Novon 16: 112–128. 2006). In northwestern South America alone, 30 new species have been described within the past 15 years.

The aim of this proposal is to promote nomenclatural stability by maintaining the widely used name *Mandevilla*. If this proposal is declined, the well-established generic name is threatened by the lesser known earlier legitimate name *Exothostemon*, which could result in 170 new combinations, and an unnecessary upheaval in taxonomic and other diverse types of literature.

Acknowledgements

I am grateful to Kanchi Gandhi for bringing the Camp & al. list to my attention, to John Wiersema for his help in searching for evidence as to the typification of *Exothostemon*, to Peter Endress for his keen eye in proofreading, and especially to John McNeill for his patient and clear advice, and whose indefatigable quest for the truth, revealed a surprise about the typification of *Exothostemon*.